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AC 04 (Rev. 1/11) Criminal ComplaintAUSAs Sunil R. Harjani and Sheri Mecklenburg
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FEB 15 2018

2-15-18

THOMAS G. BRUTON
CLERK, U.S. DISTRICT COURT

UNITED STATES OF AMERICA

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

18CR 107

CASE NUMBER:

MAGISTRATE JUDGE MARTIN

v.

JOSEPH KIM

CRIMINAL COMPLAINT

I, the complainant in this case, state that the following is true to the best of my knowledge and belief.

From in or about September 2017 to in or about November 2017, at Chicago, in the Northern District of Illinois, Eastern Division, the defendant(s) violated:

*Code Section*Title 18, United States Code, Section
1343*Offense Description*

Defendant engaged in a scheme to defraud, and to obtain money and property by means of materially false and fraudulent pretenses, representations, promises and concealment of material facts, and, for the purpose of executing such scheme, caused to be transmitted by means of an interstate wire communication the transfer of approximately 55 Bitcoins on or about November 16, 2017

This criminal complaint is based upon these facts:

X Continued on the attached sheet.

Todd D. Rathbun
TODD D. RATHBUN

Special Agent, Federal Bureau of Investigation
(FBI)

Sworn to before me and signed in my presence.

Date: February 15, 2018

Daniel G. Martin

Judge's signature

City and state: Chicago, Illinois

DANIEL G. MARTIN, U.S. Magistrate Judge

Printed name and Title

I, Todd D. Rathbun, being duly sworn, state as follows:

2. This affidavit is submitted in support of the attached complaint. The information contained in this affidavit is based upon my personal knowledge, as well as my review of subpoenaed records, records obtained without the use of subpoenas, and on information provided to me by witnesses to the events discussed herein. Because this affidavit is submitted for the limited purpose of establishing probable cause with regard to the attached criminal complaint, it does not set forth each and every fact that I have learned during this investigation.

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4. As further stated below, there is probable cause to believe that KIM engaged in a scheme to defraud Consolidated Trading, LLC, Consolidated Trading, LLC's affiliated entity Franklin & Wacker, LLC, and its principals. Specifically, there is probable cause to believe that KIM, who was a trader at Consolidated, misappropriated at least \$2 million of the company's cryptocurrencies, namely Bitcoin and Litecoin, for his own personal benefit and made false statements and representations to the company's management in order to conceal his misappropriation.

FACTS ESTABLISHING PROBABLE CAUSE

Background

5. The records of the Illinois Secretary of State show that Consolidated is a privately-held Illinois corporation founded in or around October 2001, with its principal place of business in Chicago, Illinois. At all relevant times, Consolidated was a proprietary trading company specializing in the trading of index-based options and other derivatives products.

6. KIM was hired by Consolidated on or about July 1, 2016 as an assistant trader in Consolidated's Bond Group. KIM lived in Chicago, Illinois and worked at Consolidated's Chicago office. According to one of Consolidated's owners (Owner A), on or about September 2017, Consolidated formed a Cryptocurrency Group to engage in cryptocurrency trading. Consolidated formed a new affiliate, Franklin, for the Cryptocurrency Group. On or about September 1, 2017, Consolidated moved KIM from its Bond Group to its Cryptocurrency Group.

7. Based on publicly available information, and my own training and experience, I know that cryptocurrencies are digital (or virtual) currencies that function as mediums of exchange, units of account, and/or stores of value. These currencies use cryptography (a form of data encryption) for security and are not issued by any central authority, such as a government or banking system. Cryptocurrencies are exchanged between users on a decentralized peer-to-peer

network of computers, which is called a blockchain. Exchanges of cryptocurrencies use alphanumeric addresses, and not user's actual names, account numbers, or other personally identifiable information.

8. While cryptocurrencies often operate like real currencies issued by central authorities, they do not have legal tender status in the United States. That said, many cryptocurrencies have an equivalent value in (and can be converted to) real currency. These are commonly referred to as "convertible" virtual currencies and include Bitcoin and Litecoin. For example, the holder of 10 Bitcoins can convert those Bitcoins to an equivalent value of U.S. currency based on current exchange rates. While there are currently hundreds of different types of cryptocurrencies in existence, Bitcoin and Litecoin are some of the most commonly used cryptocurrencies in circulation. Both Bitcoin and Litecoin are convertible virtual currencies that can be transferred between users and purchased with, and exchanged for, U.S. and other real or virtual currencies.

9. Cryptocurrencies can be traded on exchanges, which are businesses that allow cryptocurrencies to be traded for government-backed currencies, such as the U.S. Dollar, or other cryptocurrencies. As discussed later in this affidavit, some of these exchanges included Bitfinex, BitMEX, Bithumb, and Kraken. Bitfinex is a cryptocurrency exchange owned by iFinex, Inc. located in Hong Kong. BitMEX is a cryptocurrency exchange owned by HDR Global Trading Limited located in Hong Kong. Bithumb is a cryptocurrency exchange owned by BTC KoreaCom Corporation, Ltd. located in Seoul, South Korea. Kraken is a cryptocurrency exchange owned by Payward, Inc. whose U.S. operations are operated under Payward Ventures, Inc., both of which are located in San Francisco, California.

10. Wallets or digital wallets are mediums that store the public and private keys which can be used to receive or transfer the cryptocurrency. Public and private keys are the encryption mechanisms used to access cryptocurrency. Wallets can be in the form of hardware (similar to a USB drive or an external hard drive), or through a third-party online wallet provider. Trezor wallets are a type of digital wallet that are small, physical devices (similar to thumb drives or external hard drives) that allow cryptocurrency to be securely transferred to and from accounts to trade cryptocurrency on various exchanges.

11. The Chicago Mercantile Exchange (CME) and Chicago Board Options Exchange (CBOE) began trading cryptocurrency derivatives (such as futures contracts) on or about December 10 and 18, 2017, respectively. While cryptocurrencies were available to be bought and sold in the U.S. prior to December 10, 2017, cryptocurrency derivatives were not available on U.S. exchanges before this time. That said, foreign-based platforms and/or exchanges offered cryptocurrency derivatives prior to December 10, 2017.

12. Primary forms of foreign derivatives include futures contracts traded on foreign exchanges. Futures contracts are financial instruments representing contracts to buy or sell a specific product or financial instrument (such as currency) in the future. That is, the buyer and seller of a futures contract agree on a price today for a product or financial instrument to be delivered (by the seller), in exchange for currency (to be provided by the buyer), on a future date. A “short” futures position is one in which the seller speculates the price of the underlying financial instrument will decrease before the specific future date allowing the seller to profit on having secured the price at an earlier, higher rate.

13. For example, if Bitcoin is trading at \$10,000 per Bitcoin, a futures trader enters a short position by agreeing to sell Bitcoin at \$10,000 at a future date in anticipation that Bitcoin

prices will decrease before that date. If Bitcoin is trading at \$9,000 per Bitcoin on the futures contract settlement date, the seller would have earned \$1,000 in profit, as the buyer would be required to purchase it from him/her at \$10,000 instead of the current market rate of \$9,000.

14. Futures positions typically have initial margin requirements. These margin requirements necessitate the holder to deposit a certain percentage of the contract price to cover negative movement of the underlying financial instrument. For example, the holder of the short Bitcoin future of \$10,000 may be required to deposit 30% (or \$3,000) to help cover any losses on this position. Thus, if the price of Bitcoin increased to \$11,000 (instead of decreasing), the initial margin would cover the related \$1,000 loss.

15. If a price change results in a loss that exceeds the initial margin, the exchange may issue a "margin call" in which it requires the position holder to deposit additional funds. For example, if the price of Bitcoin increased from \$10,000 to \$14,000, a margin call might be made requiring the trader to deposit an additional \$1,000 of margin to cover the loss exceeding their \$3,000 initial margin.

Information Obtained from Consolidated

16. From in or about December 2017 through February 2018, I conducted interviews with members of Consolidated's management and other personnel. These interviews included: (1) Owner A, who was a co-owner of Consolidated, (2) Owner B, who was also a co-owner of Consolidated, (3) Director A, who was Consolidated's controller, (4) Director B, who was Consolidated's Chief Financial Officer, (5) Director C, who was Consolidated's Chief Administrative Officer; (6) Director D, who was Consolidated's Chief Compliance Officer, and (6) Trader A, who was a trader in Consolidated's Cryptocurrency Group at the same time as KIM.

Consolidated Policies Concerning Employees' Personal Trading Accounts

17. Consolidated had specific policies and procedures in place for its employees who were trading regulated securities and commodities concerning personal trading activity outside of their employment. The FBI has obtained a copy of Consolidated's policies and procedures concerning personal trading by employees. According to these policies, Consolidated's employees trading in regulated securities and commodities were required to "provide notification to [Consolidated] of their desire to establish a securities account at another financial institution," or if an account was already held, "promptly provide written notification to the firm" of the existence of the account. If an account was already open, the employee had to "arrange for duplicate monthly confirmations, statements, or other information related to all outside account transactions to be sent contemporaneously to [Director D]." If an account was not yet opened, Director D would review the employees' request to open the account and either approve or deny the request. In addition, to the extent an employee held an approved personal account, he/she was "required to conduct activity that [did] not pose risks due to conflicts of interest." According to Director D, "conflicts of interest" included trading the same securities (or cryptocurrencies) personally that a trader was trading professionally during their employment.

18. According to Director D, KIM agreed to abide by these policies during the course of his employment as a bond trader, prior to joining the Cryptocurrency Group. The FBI has obtained and reviewed annual electronic verifications by KIM where KIM acknowledged that he reviewed and agreed to abide by Consolidated's policies.

19. Due to the fact that Consolidated was new to cryptocurrency trading, Consolidated's Cryptocurrency Group did not have the same written policies in place. However,

according to Director D, when KIM became a Cryptocurrency Trader in or about September 2017, Director D verbally informed KIM that he could not engage in personal trading in cryptocurrency, consistent with Consolidated's policy for all traders.

20. At or about this time, KIM orally informed Director D that KIM held personal cryptocurrency accounts. Director D instructed KIM to cease all personal trading in his personal cryptocurrency accounts outside of his employment due to this activity creating a conflict of interest. According to Director D, KIM verbally agreed to do so. Director D further informed KIM that if Consolidated discovered he was trading in cryptocurrencies personally, he could be terminated or other actions could be taken against him.

KIM's Misappropriation of Litecoin

21. After KIM had been informed about Consolidated's prohibition on personal trading in cryptocurrency, according to Director A, on or about the weekend of September 23, 2017, KIM initiated transfers of approximately 980 Litecoins (valued at approximately \$48,000)¹ from Consolidated's Bitfinex account to an account to which Consolidated had no control or access. According to Director A, during the week of September 25, 2017, Director A discovered these Litecoin transfers that had occurred over the weekend, and sent an instant message to KIM inquiring why these transfers were made. According to Director A, KIM stated he moved these funds to his personal digital wallet for safety reasons. The FBI has obtained these instant messages that were sent by KIM to Director A. According to the instant messages, KIM stated his personal wallet was intended "as an intermediary holding space" for the 980 Litecoins to avoid alleged issues with the Bitfinex exchange. According to Director A, he understood KIM's response to

¹ All values assigned to cryptocurrency in this affidavit are calculated at the market value for the currency at the time of the transactions.

mean that KIM moved the Litecoins in order to ensure the security of the Litecoins given purported issues with Bitfinex.

22. According to additional instant messages obtained, on or about September 27, 2017, KIM had further communication with Director A about the Litecoin transfers. According to the instant messages, KIM represented to Director A that he moved the 980 Litecoins to a personal wallet to be securely held. KIM also emailed Director A a screenshot of a Trezor wallet, which I have obtained, which purportedly shows the Trezor wallet holding the 980 Litecoins. In this email, KIM stated: "I just set up my company Trezor...so this situation will not happen again." According to Director A, he understood this to mean that KIM had established a company Trezor Wallet and that the Litecoins had been transferred into the company's wallet account.

23. Director B also inquired about the location of these Litecoins on at least two separate occasions in or about October 2017 via instant message. The FBI has obtained copies of these instant messages. In these instant messages, KIM represented these Litecoins were being held on a Trezor wallet. Pertinent portions of the instant messages are as follows:

Date & Time	Individual	Message
10/16/2017 – 16:45	Director B	"What is your [Litecoin] position at Bitfinex, on the xchange Wallet"
10/16/2017 – 16:53	KIM	"979.578 on Trezor"

...

Date & Time	Individual	Message
10/25/2017 – 15:47	Director B	"...you still have [Litecoin] in your wallet correct"
10/25/2017 – 15:49	KIM	"Chk, 979.578 on Trez"
10/25/2017 – 15:49	KIM	"Confirmed"

24. Based on the previous representations by KIM, Director B understood KIM's instant message responses to mean that the approximately 980 Litecoins were on KIM's Consolidated Trezor wallet, which was a company device.

25. The FBI has obtained the transaction history for KIM's Consolidated Trezor wallet. Based on my review of the transaction history, these Litecoins were not transferred to the Consolidated Trezor wallet.

26. The FBI has also obtained records produced by Kraken, which is a cryptocurrency exchange. According to these records, these 980 Litecoins were transferred to KIM's personal Kraken account on or about September 24, 2017. Records obtained by the FBI do not show these 980 Litecoins being transferred back to the company prior to Consolidated discovering these transfers to KIM's personal account on or about November 28, 2017. According to Directors A and B, Consolidated did not find that these Litecoins were transferred back to the company prior to on or about November 28, 2017, when Consolidated discovered the misappropriation. Thus, there is probable cause to believe that KIM misappropriated 980 Litecoins that were valued at \$48,000, and that KIM made false statements to Consolidated's management in order to conceal this misappropriation.

KIM's Misappropriation of Bitcoin

27. According to Director A, on or about November 17, 2017, when he was preparing the daily reconciliations of Consolidated's traders' activity, Director A noticed approximately 55 Bitcoins (valued at approximately \$433,000) were transferred by KIM from Consolidated's Bithumb account to an account that he did not recognize. According to Director A, he emailed KIM and asked about these 55 Bitcoins. The FBI has obtained a copy of this electronic mail. In the email, KIM represented that the transfer of the 55 Bitcoins had been "blocked," and that KIM

had taken steps to “unblock” them. According to Director A, he understood this to mean that the 55 Bitcoins would be returned to Consolidated’s Bithumb account in one or two days.

28. On or about November 20, 2017, KIM did transfer back approximately 27 Bitcoins to Consolidated’s Bithumb account. However, the additional 28 Bitcoins remained missing into the weekend of November 25, 2017.

29. According to Owner A, following the weekend of November 25, 2017, KIM did not come into work on or about November 27 or 28, 2017, and instead represented that he was sick. On or about November 28, 2017, according to Consolidated’s management, Consolidated discovered that KIM had actually misappropriated a substantial amount of Bitcoin.

30. As reflected in account records obtained by the FBI, beginning on or about Sunday, November 26, 2017 through Tuesday, November 28, 2017, KIM entered into a series of transactions in which he transferred an additional approximately 284 Bitcoins (valued at approximately \$2,815,000) from Consolidated’s Bithumb account to a Consolidated Trezor wallet, which as explained above, was a device designed to permit access to cryptocurrencies. These 284 Bitcoins belonged to Consolidated.

31. The account records then show that KIM transferred approximately 102 of the company’s Bitcoins (valued at approximately \$1,012,000) back into Consolidated’s Bithumb account during this same period. KIM also transferred the remaining 182 Bitcoins to and from his Consolidated Trezor wallet and his personal accounts, lost a portion in personal trading, and ultimately retained 58 Bitcoins on his personal account. Thus, there is probable cause to believe that KIM misappropriated Consolidated’s Bitcoin and made false statements to Consolidated’s management, such as that a transaction had been blocked and that he would return cryptocurrency to Consolidated, in order to conceal this misappropriation.

KIM's Meeting with Consolidated on or about November 28, 2017

32. According to Owner A, after discovering KIM's transfer of Consolidated's cryptocurrency to an account they did not recognize, Owner A asked KIM to come into Consolidated's offices on or about November 28, 2017. Present at that meeting were, among others, Owner A, Owner B, and Director A.

33. According to Owner A, he and others questioned KIM about his transfers of Consolidated's cryptocurrency. In response, KIM stated that he had engaged in personal trading using the approximately 55 Bitcoins that he had transferred from Consolidated's Bithumb account to his personal accounts. KIM further represented that he invested these Bitcoins in "short" futures positions on foreign derivatives exchanges. KIM stated that when the price of Bitcoin increased, and he was losing money, he transferred additional Bitcoins from Consolidated's Bithumb account to cover the margin calls for these personal investments on the foreign derivatives exchanges. Thus, KIM admitted to taking and transferring the company's cryptocurrency for his own personal benefit at this meeting.

34. On or about November 29, 2017, KIM sent an email to Owner A, Owner B, Director A, Director B, Director C, and Trader A. The FBI has obtained a copy of this email. In this email, KIM provided details of the transfers he made of Consolidated's Bitcoins to his personal accounts and digital wallets. Specifically, KIM stated he made the transfer of the approximately 55 Bitcoins from Consolidated to his personal account to cover his trading losses.

35. KIM further stated that over the weekend of November 25, 2017, he had made back some of his losses, and that he was feeling "invincible," which led him to continue trading, but also experienced more losses. In this email, KIM provided transaction details for the additional transfers of Consolidated's Bitcoins in order to cover those losses. During the course of these

transfers of the company's cryptocurrency, KIM stated his "judgment [was] becoming increasingly erratic."

36. In this email, KIM also provided details of the transfers he made of Consolidated's Litecoins to his personal accounts and digital wallets. Specifically, KIM stated he made the transfer of the approximately 980 Litecoins from Consolidated's Bitfinex account to his personal Kraken account because, according to KIM, at that time his "personal account sees big drawdown, facing liquidation transfer LTC from Bitfinex to [KIM's personal] Kraken." According to Director B, he understood this to mean that KIM transferred the company's Litecoin to his personal account in order to cover losses he was experiencing in his personal cryptocurrency trading at that time. In this email, KIM provided specific transaction details showing his transfers of Litecoin from the company account to his personal account. KIM also stated in this email that he had eventually converted the company's Litecoin that he had taken into Bitcoin.

37. KIM ended his November 29, 2017 email by stating:

"It was not my intention to steal for myself from [Consolidated] and until the end I was perversely trying to fix what I had already done. I can't believe I did not stop myself when I had the money to give back, and I will live with that for the rest of my life. You have every apology I have to give, I am sorry to betray you all like this."

Consolidated's Attempt to Recover its Cryptocurrencies

38. On or about November 28, 2017, two Consolidated Cryptocurrency Traders (Trader A and Trader B) accompanied KIM to his home to retrieve Consolidated Bitcoins allegedly held on KIM's personal wallet. While at KIM's home, Trader A and Trader B also retrieved KIM's Consolidated Trezor wallet (a physical hardware device), which KIM had taken home. According to Trader A, while at his home, KIM referred to himself as a "degen," which according to Trader A, he understood was a slang term for "degenerative gambler."

39. After obtaining KIM's Consolidated Trezor wallet and viewing KIM's desktop wallet, KIM, Trader A, and Trader B went back to Consolidated's office. While at Consolidated's office, KIM assisted Trader A to log into KIM's personal BitMEX account to recover additional Consolidated Bitcoins. Consolidated was able to recover approximately 144 Bitcoins (valued at approximately \$1,457,000) from KIM's Consolidated Trezor wallet and personal BitMEX account.

Summary of Losses

40. In summary, Consolidated was able to recover approximately 144 Bitcoins (valued at approximately \$1,457,000) from KIM's personal BitMEX account and Consolidated Trezor wallet. As a result, Consolidated incurred a loss of approximately \$603,000, as summarized below:

	Value in US Currency ² (Rounded)
Bitcoins withdrawn by KIM	\$ 3,248,000
Litecoins withdrawn by KIM	48,000
Total withdrawn by KIM	3,296,000
Bitcoins returned by KIM	1,236,000
Net Amount Withdrawn by KIM	2,060,000
Bitcoins Recovered by Consolidated	1,457,000
Consolidated Net Loss	<u>\$ 603,000</u>

Use of Interstate Wires

41. I have reviewed records relating to electronic transfers involving the use of Consolidated's cryptocurrency funds of approximately 980 Litecoins (valued at approximately

² Values are based on the approximate market value at the time of the respective transactions.

\$48,000). These transfers were made by KIM from Consolidated's Bitfinex account to KIM's Kraken account on or about September 23, 2017.

42. Based upon information obtained from Bitfinex, Bitfinex does not process transfers in Illinois, but rather in Ireland. Thus, the Bitfinex transfers identified above that were initiated by KIM in Illinois are international wire transactions.

43. I have also reviewed records relating to an electronic transfer involving Consolidated's cryptocurrency of approximately 55 Bitcoins (valued at approximately \$433,000). This transfer was made by KIM from Consolidated's Bithumb account to KIM's Kraken account on or about November 16, 2017.

44. Based upon information obtained from Kraken, Kraken does not process transfers in Illinois, but rather in California. Thus, the Kraken transfers identified above that KIM initiated in Illinois are interstate wire transactions.

Request for Issuance of a Complaint

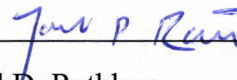
45. Based upon the foregoing information, there is probable cause to believe that, from in or about September 2017 and continuing through in or about November 2017, KIM devised, intended to devise and participated in a scheme to defraud, and to obtain money and property, namely at least \$2 million in cryptocurrency, by means of materially false and fraudulent pretenses, representations and promises, and by concealment of material facts, and for the purpose of executing that scheme, and attempting to do so, caused to be transmitted by means of wire communication in interstate commerce, certain signs, sounds and signals. In particular, for the purpose of executing the aforesaid scheme, and attempting to do so, KIM knowingly caused to be transmitted an interstate wire communication from Consolidated's Bithumb account in the amount of approximately 55 Bitcoins on or about November 16, 2017 to KIM's personal Kraken account,

in violation of Title 18, United States Code, Section 1343.

CONCLUSION

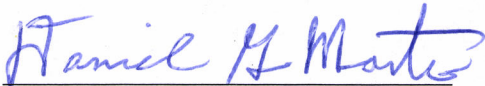
46. Based on the above information, I respectfully submit that there is probable cause to believe that wire fraud offenses, in violation of Title 18, United States Code, Section 1343, have been committed by KIM, and therefore respectfully request that this Court issue a criminal complaint and arrest warrant for KIM.

FURTHER AFFIANT SAYETH NOT.



Todd D. Rathbun
Special Agent
Federal Bureau of Investigation

Subscribed and sworn before me this 15th day of February, 2018



The Honorable Daniel G. Martin
United States Magistrate Judge
Northern District of Illinois